The Multiracial Asian-American Advantage at School Entry

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#### Abstract

Asian-American students have some of the highest scores on standardized tests in American schools-a pattern commonly attributed to immigrant selectivity. We extend this line of inquiry by examining mixed-race couples and their children. Using both the ECLS-K cohorts of 1998 and 2010, we document the persistence of the Asian-American educational advantage over time by comparing the math and reading scores of white students (1998 n=6700; 2010 n=4500) with Asian-American (1998 n=500; 2010 n=600) and multiracial Asian/white (1998 n=150; 2010 n=150) students at the start of elementary school. Surprisingly, multiracial Asian/white students have some of the highest math and reading scores. We attribute the difference between Asian- and multiracial Asian/white advantages to two forms of selectivity the immigrant selectivity of Asian-American parents (external selectivity) and marriage market selectivity of interracial Asian/white couples (*internal selectivity*). Generally, socioeconomic advantages are an important part of the advantage, however, when we examine parenting practices we find that parenting works in opposite directions for multiracial and monoracial Asian couples—decreasing the size of the multiracial Asian/white educational advantage but increasing the size of the Asian-American advantage.

Keywords: academic achievement, multiracial households, childhood, parenting

# Introduction

The Asian-American educational advantage in the United States has often been conceptualized as paradoxical—despite lower levels of parental support in childhood and involvement in schools (and for some Asian-American groups, lower socio-economic resources), children in Asian-American households tend to outperform their white, U.S. born classmates on standardized math and reading tests and obtain higher levels of educational attainment (Kao and Thompson 2003; Lee and Zhou 2014; Gibbs et al. 2017; Kao 1995; Robinson and Harris 2014; Huntsinger and Jose 2009a, 2009b). As considerable theoretical attention has been placed on understanding this Asian American advantage (Lee 2015), the Asian-American experience is diverse and partly a story about interracial marriage. More than one-third of Asian marriages in the United States are in interracial marriages (Lee 2015; Livingston and Brown 2017; Lewis and Robertson 2010; Fryer 2007) with white males and Asian females representing the most prevalent interracial marriages (Fryer 2007; Lee 2015; Qian and Qian 2020). Whether this pattern educational persists for multiracial Asian-American children<sup>1</sup> and whether conventional explanations apply in different ways to this growing demographic is of interest.

To date, we know that resources in multiracial Asian households are different—most multiracial families have economic, social and cultural advantages over monoracial households

<sup>&</sup>lt;sup>1</sup> To avoid complexity when describing children from homes of one white and one Asian-American parent, we will use the term "mulitracial Asian/white children" for the remainder of the study. We also use the term "multiracial" as Asian origins themselves are diverse. We would prefer to avoid the panethnic label of "Asian" but our case sizes are too small to delineate between specific countries of origin.

(Cheng and Powell 2007). And while this could translate into more educational benefits for multiracial children, surprisingly little work has established whether or not this is true (see Koury and Votruba 2014<sup>2</sup>). Therefore, we explore whether the Asian-American advantage persists across diverse households, by examining math and reading scores from kindergarten to 1st grade across seven household types; monoracial households with children with two parents who are (1) white, (2) Asian-American, (3) African American or (4) Latinx, and multiracial households where one parent is white and the other is (5) Asian-American, (6) African American, or (7) Latinx. To account for any advantages that might by associated with household type (Quin and Qian 2020), we explore how socioeconomic factors, familial relationships and parental investment and involvement shape monoracial Asian-American and multiracial Asian/white educational outcomes at the start of school. Furthermore, to determine if these patterns are period specific, we compare patterns from 1998-2000 to 2010-2012.

## **Literature Review**

#### The Immigrant Experience and Interracial Households

In the past century, the United States has become more diverse both racially and ethnically, attracting the largest number of immigrants in the world (United Nations 2020). This is in large part due to the passage of the 1965 Immigration Act<sup>3</sup> that reduced restrictions on non-European immigration, allowing tens of millions of individuals from more diverse nations to enter the United States (Suarez-Orozco and Suarez-Orozco 2009). Today, almost one in four

<sup>&</sup>lt;sup>2</sup> This study explore multiracial Asian households in early childhood before school entry.

<sup>&</sup>lt;sup>3</sup> Hart-Celler Act, INS Act of 1965, Pub. L. 89-236 (1965).

school-aged children has at least one immigrant parent (O'Hare 2004; Kaiser Family Foundation 2017). This post-1965 immigration wave was also accompanied by a tremendous increase in interracial marriage over the past several decades (Lewis and Robertson 2010).

The prospect of a growing number of interracial marriages and its impact on their children's educational outcomes represents the intersection of two theories of immigrant cultural adaptation—assimilation and pluralism. As assimilation is a process by which a person's or group's distinct language, culture and/or social norms come to resemble those of the majority group (Healey et al. 2019; Alba and Nee 2003), pluralism is the maintenance of unique ethnic identities (Healey et al. 2019). As immigrant parents tend to adhere to their cultures of origin<sup>4</sup> (Kim 2008), it is less certain how this process operates in interracial or interethnic marriages (Morgan 2013), especially in its influence on children and their educational development.

Nearly 60% of Asian-Americans are immigrants (Pew Research 2021) and Asian-American immigrant children tend to be more socially integrated than their parents and have greater familiarity with the dominant society and increased English language facility (National Research Council 1999). But children of immigrants also experience some disadvantages. The second generation encounter a psychological dilemma in that "they are partly ethnic and partly American but full members of neither group" (Healey et al. 2019:56). Resulting from a marginalized identity, their world at school often conflicts with what is cultivated at home in many ways. For example, the family values of the sending countries, especially east-Asian

<sup>&</sup>lt;sup>4</sup> Some researchers predict this as the consequence of enculturation, which is a socialized process by which people learn the requirements of their surrounding culture and acquire values and behaviors appropriate or necessary in that culture (Leaper and Farkas 2007).

countries, create an expectation that children adapt their interests to those of their elders and of the family as a whole, while American values tend to emphasize individualism (Healey et al. 2019; Suarez-Orozco and Suarez-Orozco 2009). Contradictions like this can lead to different childrearing patterns that diverge from practices typical of their country of origin and the American mainstream. Effective parenting would then depend on whether their children are able to balance competing values in ways to compliment the cultural repertoire of school settings (Lareau 2011).

Of course, these issues are more complex in interracial households, where children may be subject to pressures to assimilate from a native-born parent while also being pressed to conform to elements of an immigrant parent's culture. The traditional assimilation perspective suggests that primary structural integration—incorporation into social networks and institutions of a new country—typically precedes intermarriage and marital assimilation is characterized by an environment in which there is no difference in societal acceptance levels between interracial and same-race marriages (e.g. Gordon 1964). In other words, mixed race couples may have already incorporated social norms and expectations into their worldviews before courtship and therefore, their parenting styles would not be contradictory. Ideally, then, their children would be expected to have fewer cultural barriers when negotiating the expectations of the dominant society, especially in school.

Yet, in reality, marital assimilation may not be automatic (Healey et al. 2019). Segmented assimilation among recent immigrant groups suggests divergent assimilation experiences of intermarried couples (Portes and Rumbaut 2006). Cultural compromises between interracial partners, may exist in form of persistent parenting conflicts due to different cultural backgrounds (Crippen and Brew 2007). Parenting conflicts may become acute when determining the type and

frequency of parental involvement, especially in the first years of school where parental involvement is encouraged and is most frequent in American schools (Gibbs et al. 2022). In addition, for younger parents, the start of school could represent a new challenge for understanding which parenting strategies should be pursued to effectively help their child in the educational system.

#### **Parenting in Interracial Households**

What do we know about parenting differences in multiracial homes? First, parenting styles often vary along racial and ethnic lines. For example, U.S. born white mothers tend to emphasize autonomy and independence, preferring to use suggestions rather than commands and other indirect means of structuring their children's behavior (Huntsinger and Jose 2009b), especially among the middle class (Lareau 2011). Their intention is to promote autonomy, assertiveness, verbal competence, and self-actualization in their children. Huntsinger and Jose (2009b) found that white parents rated themselves as being more accepting of their children and believed that creating an enjoyable and satisfying climate would help parents to facilitate the school performance of their children (Leung et al. 1998).

By comparison, parental control in Chinese culture ("guan") means "to govern" and has a relatively positive connotation for Chinese parents because it implies the love or care of parents for their children (Huntsinger and Jose 2009b). This is consistent with traditional beliefs in some Asian contexts suggesting that child achievement requires firm control (Jarvis et. al 2020). Many Chinese parents adhere to elements of Confucian ideology and believe in the importance of teaching their children behaviors as well as giving them emotional and psychological direction. Accordingly, parental control in cultural contexts like this denotes supervision and intervention

in children's values, beliefs, religion (Fung 1999; Olsen et al. 2002; Wu et al. 2002) and daily actions (Lin and Fu 1990; Wu et al. 2002).

More specifically, Chinese parents tend to encourage harmony in interpersonal relationships by emphasizing the importance of modesty and cooperation (Wu et al. 2002). Chinese children generally comprehend this firm control as an expression of parents' care and concern – an expression of "filial piety," a more collectivist value that prioritizes family obligations over personal interests (Park et al. 2010; Ferguson et al. 2013). This pattern explains why greater control exerts a positive influence on the child's psychological adjustment among Chinese American families (Huntsinger and Jose 2009b). However, the incongruity between this cultural value and the individual autonomy supported by American cultural norms may produce tensions in immigrant families, altering parenting practices and their effects on children's schooling outcomes (Park et al. 2010; Portes and Zhou 1993), especially in interracial homes. One seminal study on interracial families and parental resources for young children is Cheng and Powell (2007). They find, with the exception of black fathers/white mothers, parents in multiracial families allocate greater resources to their children than monoracial parentsspecifically investing in more educational goods, more cultural trips, and higher maternal investments. To add to these important findings, we replicate their work using both the ECLS-K 98 and ECLS-K 11 and examine whether these investments translate to higher academic returns for children, a stated limitation of Cheng and Powell's (2007) study.

# **External and Internal Selectivity**

As important as cultural practices may be for parenting across racial/ethnic households, research on the Asian-American educational advantage has focused more on the importance of

immigrant *selectivity* and *hyperselectivity* in understanding immigrant children's educational achievement. While immigrant selectivity refers to the uniqueness of immigrants in comparison to their non-immigrating peers (Feliciano 2020), hyperselectivity suggests that some immigrants are not only select among people in their home countries, but also among the host population they immigrate to (Lee and Zhou 2015). For example, immigrants from Asian countries vary dramatically in their educational attainment (Budiman and Ruiz 2021), but so too does the educational context they immigrate from. So, whereas immigrants from Vietnam are less likely to have a college degree than Korean immigrants, as Lee (2015) observes, the degree of selectivity among Vietnamese immigrants is greater as non-immigrants in Vietnam are much less likely to have a college degree than Korean non-immigrants.

With regards to hyperselectivity, not only do a higher percentage of hyperselect immigrants have college degrees than non-immigrants in their home country, but a higher percentage also have college degrees than non-immigrants in the US. This is especially apparent among Asian-Americans from South and East Asia, who have much higher education and income levels than white Americans. Immigration law favoring highly-skilled Asian immigrants (Lo, Li, and Yu 2019) has for the large part, created these select immigrant groups. We refer to this as *external selectivity*.

Immigrants may also experience a different but equally advantaged selection process when they marry. Marriage markets can have a high degree of selectivity on immigration status and education level—something we refer to as *internal selectivity*. Qian and Qian (2020) find that among interracial Asian-American households have high levels of educational assortative mating patterns—couples select on education level. Thus, any parenting differences may be selected before the union. For example, that larger percentages of Latinx and Asian-Americans

than African Americans are involved in interracial marriages suggests that these groups face fewer cultural barriers in American society (Lewis and Robertson 2010) and in the marriage market.

Accordingly, it could be that parents in multiracial marriages adopt or integrate the beneficial aspects of each culture and apply them to their child-raising strategies. Consequently, instead of these homes middling the advantages and disadvantages of two cultures, children from this type of family might enjoy the best of both worlds—having some degree of autonomy and independence coupled with a respect or filial piety for parents, which could in turn positively influence their academic outcomes (Cheng and Powell 2007). But we should note, as research on assortative mating suggests that marriages often match along important social boundaries (e.g. race, ethnicity or socioeconomic status), intermarriage patterns are complicated and can change based on the size of minority populations (Schwartz 2013).

Taken together, we test these cultural and selectivity assumptions directly by examining the racial and interracial household differences in resources and educational outcomes of children in the first two years of schooling. If resources and outcomes favor multiracial Asian-American households over monoracial Asian-American and white households, selectivity claims may be more persuasive given that any cultural benefits of immigration would be, at least, partly absorbed by the presence of a white parent. Short of qualitative work, this is perhaps the strongest test we can employ with survey data.

Why focus on school entry to examine multiracial Asian-American educational achievement? Childhood is the ideal time to identify the educational outcomes for two reasons: first, parental involvement in school is highest in the early years of schooling (Robinson and Harris 2014) and second, the Asian-American advantage is relatively unchanged from school

entry to the middle school years (Gibbs et al. 2017). With the first couple years of schooling as our focus, we explore to what degree parenting and resource account for educational disparities by race/ethnicity. As such, we provide three expectations based on existing literature:

(1) There will be a monoracial Asian-American and a multiracial Asian-American advantage in math and reading scores at the start of school.

(2) The multiracial Asian-American advantage will stem from both external selectivity and internal selectivity.

(3) Parenting factors will not account for the monoracial Asian-American advantage but will matter for understanding the multiracial Asian-American advantage.

# **Data and Sample**

We use data from the Early Childhood Longitudinal Study Kindergarten Class of 1998-1999 (ECLS-K 98) and the Early Childhood Longitudinal Study Kindergarten Class of 2010-2011 (ECLS-K 10). Both are designed to examine children's early school experiences and development. Collecting information from children, parents, teachers, and schools, the ECLS-K data employed a multistage probability sample design to select a nationally representative sample of children attending kindergarten in the United States in 1998-1999 and twelve years later in 2010-2011. Researchers followed up with the children in first, third, fifth, and eighth grades. There were data for 21,400 children in the 1998 cohort and 18,200 in the 2010. These data are appropriate for addressing the research questions for the following reasons. First, ECLS-K is a nationally representative source of data of students' experiences in elementary school. As crucial periods for children's growth, elementary school years are the interest of the study. For the present analyses, we examine math and reading scores at the beginning of kindergarten (fall) and the end of first grade (spring). Moreover, researchers sampled sufficient cases of parents with minority ethnic origins and/or foreign-born backgrounds, which made it feasible to analyze children born in interracial marriages. Last, we are able to explore any multiracial advantage across two waves data.

Children living with a single parent were excluded from our analyses. Children did not have to be living with both of their biological parents to be included in the analyses, but they had to be living with both parents through the assessment in spring of first grade to minimize the potential influence of a change in family structure (Shim, Flener, and Shim 2000). The final analytic sample size was 9,750 for the 1998 cohort and 7,650 for the 2010 cohort.

Item-level missing data were treated with multiple imputation using chained equations (Enders 2010). The chained equations approach to multiple imputation allows the imputation model to incorporate the distribution of the imputed variables. For example, dichotomous variables are modeled with logistic regression, ordered variables are modeled with ordered logistic regression, etc. Separate imputation models were estimated for the 1998 and 2010 cohorts. With just under 25 percent of observations having missing data in the 2010 cohort, we used 25 imputed datasets separated by 100 burn-ins as graphical diagnostics indicated the imputation models converged well before that point (White, Royston, & Wood 2011). The analyses were completed on each of the 25 datasets separately and combined using Rubin's rules with Stata's mi estimate command.

## **Methods and Measures**

#### **Race/Ethnicity of Parent**

We compiled the parent racial/ethnic identification from roster data. Parents were asked to identify their racial/ethnic identity. We only included biological parents and parents who identified with only one race/ethnicity. We created the following categories: white parents, Asian parents, white and Asian parent, black parents, white and black parent, Latinx parents, and white and Latinx parent. Because our focus is on Asian parents, we should note that more than 85% of Asian mothers were born outside of the US—Philippines (20%), India (16%), Laos (12%), Vietnam (8%), and others. Similarly, about 85% of Asian fathers were born outside of the US. The countries they were from include the following: India (18%), Philippines (18%), Laos (13%), Vietnam (10%), and others. Children's race was derived from parent reports of the parent's race/ethnicity.

#### **Dependent Variables**

*Cognitive Assessments*. The assessment of math skills captures conceptual knowledge and problem solving. The assessment measured number sense, properties, and operations. The assessment for reading captures basic reading skills (e.g., word recognition), vocabulary knowledge, and reading comprehension. Both math and reading assessments use item-response methods (IRT) to gauge the level of difficulty, discriminating ability, and "guess-ability" of each item (Tourangeau et al. 2009).

#### **Independent Variables**

Our list of measures is principally derived from Cheng and Powell (2007) using the ECLS-K 1998 data and extended to the ECLS-K 2010 data. *Socioeconomic Factors*.

Socioeconomic factors are measured by household income, parent education level and occupational prestige. The responding parent reported theirs and their partner's educational attainment. In both cohorts, options were 8th grade or less; 9th to 12th grade; high school or equivalent (GED); vocational school or tech program after high school; some college; bachelor's degree; graduate or professional school, no degree; master's degree; doctorate or professional degree. For parental *occupational prestige*, we use separate continuous measures of mothers and fathers' occupational prestige (z-scored; M = 0, SD = 1).

*Income. Income* was measured in the spring kindergarten wave. For the 1998 cohort, most of the parents who responded to the survey that had incomes of \$32,500 or less reported their household income from the previous year in dollars. The remainder reported their income as being in categories of \$5,000 up to \$40,000, between \$40,001 and \$50,000, \$50,000 to \$75,000, \$75,001 to \$100,000, \$100,000 to \$150,000, \$100,001 to \$200,000, or \$200,001 or more. Responses were recoded to the midpoint of the category range (the final category was recoded to \$250,000). All values were rescaled to units of \$10,000 and adjusted for inflation to the equivalent in 2019 dollars. For the 2010 cohort, the responding parent reported their income as being in categories of \$5,000 up to \$75,000, \$75,001 to \$100,000, \$100,001 to \$200,000, or \$200,001 or more. Responses were recoded to the midpoint of the category range (the final category was recoded to \$250,000). All values were rescaled to units of \$10,000, \$100,001 to \$200,000, or \$200,001 or more. Responses were recoded to the midpoint of the category range (the final category was recoded to \$250,000). All values were rescaled to units of \$10,000 and adjusted for inflation to the equivalent in 2019 dollars to match the 1998 measure.

*Parental Investments*. The responding parent reported material investments in their child's education and childcare. The number of children's books in the home was assessed during the fall of kindergarten. The measure for the 1998 cohort was top-coded at 200. The 2010 cohort's measure was not top-coded but we recoded any values over 200 to equal 200 so that the

two measures would have a parallel construction. Having a computer in the home that the child used was assessed in the spring of their child's kindergarten and was coded 1 if there was and 0 if there was not. Attending a private school was coded 1 if they attended a private school and 0 if they attended a public school and was assessed in the spring of kindergarten. The responding parent indicated whether and the type of primary non-parental care was used for the child before entering kindergarten. If the child was involved in Head Start, another center-based program, or multiple center-based programs, they were coded 1 and 0 otherwise.

*Parental Involvement*. Seven items in the parent interview captured parental participation in school. The items include contact with the child's teacher or school (for any reason having to do with the child), presence at an open house (or back-to-school night), attendance at a meeting of parent-teacher institutes (for example, Parent-Teacher Association, or Parent-Teacher Organization), attendance at a regularly scheduled parent-teacher conference (or meeting with the child's teacher), participation in a school or class event (such as a play, sports event, or science fair), volunteering at the school (or serving on a committee), and participation in fundraising for the child's school. Response options were yes (1) or no (0) and parent's schoolbased involvement was the sum of the seven items.

*Home involvement*. The responding parent reported during spring of kindergarten how often they or someone in the household did the following activities with the child: reading books, telling stories, singing songs, helping with arts and crafts, playing games or puzzles, talking about nature or doing science projects, playing with construction toys, and practicing with numbers and letters. Responses were 1 "not at all," 2 "once or twice a week," 3 "3 to 6 times a week," and 4 "every day". Home involvement was the mean of these eight items and had a Cronbach's alpha of .70 for the 1998 cohort and .71 for the 2010 cohort.

*Extracurricular Activities*. The parent reported during spring of kindergarten whether the child participated in music lessons, art lessons, organized clubs, organized athletics, drama classes, performing arts classes, dance lessons, and craft classes or lessons. Responses were coded 1 for yes and 0 for no. Extracurricular activities was the sum of the eight items.

*Educational Trips*. The parent reported during spring of kindergarten whether they had taken the child to visit the library or a bookstore, an art museum or historical site, the zoo, a concert, and a sporting event. Responses were coded 1 for yes and 0 for no. Educational trips was the sum of the five items.

*Familial Relationships*. Warm/Close Moments with Child. The parent reported in the spring of kindergarten how true it was that they "often have warm, close times together [with their child]." Response options were 1 "completely true," 2 "mostly true," 3 "somewhat true," and 4 "not at all true." The responses were reverse coded so that higher values indicated more agreement. Express Affection for Child. The parent reported in the spring of kindergarten how true it was that they "express affection by hugging, kissing, and holding [their child]." Response options were 1 "completely true," 3 "somewhat true," and 4 "not at all true." The responses affection by hugging, kissing, and holding [their child]." Response options were 1 "completely true," 3 "somewhat true," and 4 "not at all true."

*Discuss Religion/Traditions in Home.* The parent reported during the spring of kindergarten how often does someone in the family talked with the child about the family's religious beliefs or traditions. Response options included 1 "never," 2 "almost never," 3 "several times a year," 4 "several times a month," and 5 "several times a week or more." *Number of Close Grandparents.* In the fall of kindergarten, the parent reported how many close grandparents the child has. Parent Talks to Other Parents. In the spring of kindergarten, the parent reported how

many of the other parents at their child's school they frequently talk to either in person, on the phone, or by texting, emailing, or using a social networking site.

*Educational Expectations*. The parent reported during the fall of kindergarten how far they expected their child to go in school. Responses for the 1998 cohort included: 1 "less than high school diploma," 2 "graduate from high school," 3 "two or more years of college," 4 "college degree" 5 "master's degree or equivalent," and 6 "PhD, MD, or other higher degree." For the 2010 cohort, an additional response option, "vocational or technical school" between "graduating from high school" and "two or more years of college." This item is treated as a continuous variable for regression models.

Non-English Language Spoke at Home. The parent reported whether the primary language at home was either non-English, only English, or non-English and English equally. Responses were coded 1 if they reported non-English or non-English and English equally and 0 if only English was spoken.

*Family Structure. Both Biological Parents at Home.* A dichotomous variable was created from household roster data to indicate whether the child was living with both biological parents. Father and Mothers Age. The father's and mother's age in years was given by the responding parent in the fall of kindergarten assessment. Number of Siblings. A count of the number of the child's siblings living in the home was created from the household roster data for the fall of kindergarten assessment.

*Child Characteristics. Age.* Age is the child's age in months in the fall of kindergarten. *Sex.* Child sex was measured as female with female = 1 and male = 0. *Health.* The responding parent reported the child's health as 1 "poor," 2 "fair," 3 "good," 4 "very good," and 5 "excellent." The variable was reverse coded so that higher values represented better health. *Child* 

*Has Disability.* The responding parent reported in the spring of kindergarten whether the child had a clinical disability and was coded 1 for "yes" and 0 for "no."

#### **Analytic Strategy**

We first present descriptive statistics for all variables employed in the analysis to show the characteristics of the samples for the ECLS-K 1998 and ECLS-K 2010 data (Table 1). Then, we separate results by the racial/ethnic identification of the mother and father (Table 2). Next, we conduct OLS regression to explore factors that might account for the Asian and Asian/white advantage for both reading and math at 1st grade, separated by the ECLS-K 1998 and the ECLS-K 2010 cohorts (Tables 3 and 4). Results for kindergarten entry are reported in the Appendix (Table A1 and Table A2).

#### Results

#### **Descriptive Statistics**

Table 1 presents descriptive statistics for all variables used in the analyses for both 1998 and 2010 data. Most measures change little from the 1998 cohort to the 2010 cohort. There are two exceptions, the percent of homes with a computer jumps from 61% to 79% and parent's educational expectations of their child increased from 4.10 to 5.25. On the scale of expectations, this is a robust shift from essentially a college degree (4) to master's degree or equivalent (5).

Table 2 reveals household differences across key variables. We limit our comparisons to white parent households (WW) compared to Asian-American (AA) and multiracial Asian/white households (AW). We find some striking patterns. First, math and reading scores are highest in

Asian/white households, followed by monoracial Asian-American households. Specifically, in white households, kindergarten entry math scores are .30 and .34 standard deviations higher than the average student in the sample for both the 1998 cohort and 2010 cohorts respectively. In monoracial Asian-American households, the estimates are higher for math, at .40 (1998) and .52 (2010) standard deviations higher than the average student in the sample. And in Asian/white households, the advantage is clear—.66 and .85 standard deviations higher than the average student in the sample, for the 1998 and 2010 cohorts, respectively. The clear multiracial Asian/white advantage extends to reading scores and to estimates of math and reading at the end of 1st grade. At least descriptively, our results document the Asian-American advantage (as has been reported elsewhere), and more importantly, the singular educational advantage of multiracial Asian-American advantage students at the start of school.

Table 2 also reports differences by socioeconomic factors, parental investments, parental involvement, familiar relationships, educational expectations, and language spoken at home. Here, a potential explanation for the unusually large multiracial Asian-American advantage takes shape. In 2010, average household incomes are substantially higher in multiracial Asian-American homes (~\$130,370), compared to white households (~\$104,200) and monoracial Asian-American households (~\$110,300). Likewise, the education levels of both the mother (6.02) and father (6.07) in multiracial households is higher than white (mother=5.29 and father=5.00) and monoracial Asian households (mother=5.47 and father=5.59).

Parental investments are also higher in multiracial Asian/white homes compared with white and monoracial Asian-American households, by number of books (MAA=104; W=99; AA=49), percent in private school (MAA=71%; W=14%; AA=16%), and preschool/daycare (MAA=71%; W=59%; AA=61%). For parental involvement, multiracial Asian/white homes are

more similar to white than monoracial Asian households, especially for home involvement (MAA=2.01; W=2.01; AA=1.73,) school involvement (MAA=.76; W=75; AA=.64), and extracurricular activities (MAA=.22; W=.20; AA=.16). This suggests that, at least for multiracial Asian/white households, there is anything but a middling of parenting practices between monoracial Asian and white households as Cheng and Powell also show (2007).

Regarding familiar relationships (see also Cheng and Powell (2007)), there is a similar pattern, especially for parents talking to other parents (MAA=3.32; W=2.77; AA=2.38). Interestingly, multiracial Asian/white household talk about religion/traditions in the home about as much as white households (MAA=3.45; W=3.74) but more than monoracial Asian-American households (AA=2.38). This suggests that multiracial Asian/white homes conform more closely to white homes than monoracial Asian-American households. There are two exceptions. Monoracial Asian-American homes have higher educational expectations (MAA=104; W=99; AA=49) and speak a second language spoken in the home (MAA=104; W=99; AA=49) more so than multiracial Asian/white and white households.

In sum, there is clear descriptive evidence that multiracial Asian/white households are a combination of socioeconomic and parenting-related advantages. Although difficult to examine directly, when these advantages are similar with monoracial Asian-American households, this suggests external selectivity. And where more advantaged than monoracial Asian-American households, this suggests a unique marriage market (assuming advantages are accrued prior to courtship) that lends support for internal selectivity. Our findings are merely suggestive but both forms of selectivity are likely at play.

These results are descriptive, but don't allow for us to delineate which advantages uniquely matter for understanding racial/ethnic differences in achievement, and which factors are merely proxies for other advantages. Thus, we turn to multivariate analyses to simultaneously model the relationship between socioeconomic factors, parental investments, parental involvement, familial relationships and other measures.

[Insert Tables 1 and 2 about here]

#### **Multivariate Results**

Tables 3 and 4 report estimates of math scores at kindergarten entry and the end of 1st grade. Reading results are similar and are reported in the Appendix (Table A1 and Table A2). We will primarily focus on the ECLS-K 2010, although we also report the ECLS-K 1998 results for comparison. For the ECLS-K 2010 bivariate results, children with one white parent and one Asian-American parent have a clear educational advantage compared to their white peers, at least when measured by standardized math at kindergarten entry (b=.513, p<.001) and at the end of 1st grade (b=.463, p<.001). By comparison, monoracial Asian-American students have a modest advantage in math at kindergarten entry (b=.187, p<.001) that is no longer significant at the end of 1st grade (b=.045, NS), compared to their white students in kindergarten, and about 35% at the end of 1st grade (1-(.300/.463)). Conversely, socioeconomic considerations do little to account for the monoracial Asian-American advantage in math at kindergarten (with no difference to account for at the end of 1st grade).

Next, we explore the role of parental investments and involvement in Models 3 and 4 of Tables 3 and 4. As expected, the monoracial Asian-American advantage only grows (from b=.187, p<.001 to b=.313, p<.001 and b=.296, p<.001) in line with other findings (see Gibbs et al. 2017). This is due to lower levels of monoracial Asian-American parental investment and

involvement (see Table 2) that, when accounted for, work to increase the size of the advantage. However, the multiracial Asian/white advantage is somewhat reduced when accounting for parental investment (11%=1-(.458/.513)) and parental involvement (5%=1-(.486/.513)). Remarkably, the size of the monoracial Asian-American and multiracial Asian/white advantage over white students are the start of school are nearly identical in size in the full model (b=.372, p<.001; b=.359, p<.001) but the path to these advantages is distinct. If multiracial Asian/white students were not identified in these analyses, their unique path to advantage would been hidden in either a monoracial Asian-American category or a biracial/multiracial student category.

Finally, when examining other multiracial households we find support of Cheng and Powell's (2007) middling hypothesis that we translate to mean that multiracial child's educational outcomes will fall between those of the two monoracial groups associated with the interracial couple. So, unlike multi-racial Asian/white students who educationally exceed both their monoracial white and Asian-American counterparts at the start of school, multi-racial Black/white and Latinx/white students have achievement that is more the average of their two monoraical peer groups. When predicting kindergarten entry math scores, at the bivariate level, black students are about -.430 standard deviations (p>001) behind white students and multiracial Black/white students are about -.140 standard deviations behind (NS). Likewise, Latinx are about -.777 (p<.001) standard deviations behind their white peers, whereas multiracial Latinx/white students are about -.179 (p<.01) behind.

[Insert Tables 3 and 4 about here]

# Conclusion

As popular media accounts of the Asian-American advantage focus on the cultural beliefs and behaviors of Asian and more specifically Chinese mothers (Gibbs et al. 2017; Okagaki and Frensch 1998), an aspect that is too often overlooked is the diversity within the Asian American category itself. While previous research has begun to examine diversity among Asian Americans in terms of varying countries of origin (Gibbs et al. 2017), increased interracial marriage suggests that points of diversity also exist for multiracial and monoracial marriages and children. How these differences impact children's educational achievement remains underresearched. In our examination of these points of distinction among Asian Americans, we find that in terms of school readiness and early educational achievement (as measured by standardized math and reading skills), multiracial Asian/white children outperform their peers. In math, they are about a half standard deviation ahead of their monoracial white counterparts at school entry and at the end of 1st grade, nearly a full standard deviation ahead of monoracial black students. The monoracial Asian-American achievement advantage only emerges when accounting for parental investments and involvement. Thus, the story of high achievement in American schools may really be more about multiracial Asian/white students than monoracial Asian-American students. Multiracial Asian/white students may benefit not only from external selectivity associated with immigration law and how it privileges advantaged immigrant groups, but also of internal selectivity, where the kinds of mix-raced couple who marry combined their advantages for their respective cultures to produce a resource rich environment for their biracial children (e.g. Cheng and Powell 2007).

How do theories of assimilation and pluralism apply in these homes? These theoretical traditions require important modifications when applied to the intimate lives of parents who

actively negotiate cultural approaches to parenting in an educational system that rewards aspects of Asian stereotypes (Lee and Zhou 2015) while expecting American-style level of parental investment and involvement in schools (Gibbs et al. 2022). It may be that there is a strategic use of cultural values and beliefs in these homes that is negotiated especially as young children enter school. Also, it may be that selectivity shapes both the socioeconomic profiles of marriageable partners but also the willingness of a partner to culturally bend and conform to a partner's values even before a child is born. One important limitation of this study, as any quantitative assessment lacks, is the ethnographic understanding of whose culture and practice are negotiated and how much of mix-raced parenting are the product of values formulated before or after courtship. Our findings provide a set of new theoretical questions for understanding assimilation, pluralism and belonging in an increasingly interracial world.

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# Tables

	ECLS-	K 1998	ECLS-I	K 2010
	Mean	SE	Mean	SE
Cognitive assessments				
Math (Kindergarten entry)	.11	.02	.16	.03
Math (Spring of 1st grade)	.10	.02	.15	.03
Reading (Kindergarten entry)	.03	.02	.14	.02
Reading (Spring of 1st grade)	.08	.02	.14	.03
Socioeconomic factors				
Income (in \$10,000)	9.31	.18	9.11	.21
Mother's educational attainment	4.36	.04	4.88	.05
Mother's occupational prestige	2.88	.04	2.89	.06
Father's educational attainment	4.37	.05	4.60	.06
Father's occupational prestige	4.04	.03	3.93	.03
Parental investment				
Number of books in the home	78.86	1.29	80.22	1.64
Computer in the home	.61	.01	.79	.01
Child in private school	.17	.01	.13	.01
Child previously in daycare	.56	.01	.57	.01
Parental involvement				
Home involvement	1.82	.01	1.94	.01
Educational trips	.42	.00	.46	.01
School involvement	.64	.01	.71	.01
Extracurricular activities	.16	.00	.18	.00
Familial relationships				
Warm/close moments with child	3.69	.01	2.72	.01
Express affection for child	3.88	.01	2.91	.01
Number of close grandparents	2.24	.02	2.59	.03
Discuss religion/traditions in home	3.93	.02	3.75	.03
Parent talks to other parents	2.35	.05	2.58	.09
Educational expectations for child	4.10	.02	5.25	.02
Non-English language spoken in home	.14	.01	.17	.01
Family structure				
Both biological parents at home	.89	.01	.95	.00
Father's age	36.20	.12	36.92	.18
Mother's age	33.76	.12	34.47	.18
Number of siblings	1.52	.02	1.58	.03
Child characteristics				
Age (in months)	68.41	.08	67.49	.12
Female	.48	.01	.49	.01
Health	4.35	.01	4.45	.02
Child has disability	.14	.00	.19	.01
Note: ECLS-K 1998 N = 9,737. ECLS-K	2010  N = 7,6	528. Result	s from 25 imp	outed

Table 1. Variable Descriptions and Descriptive Statistics

datasets and incorporate the complex sample characteristics.

	White Parents					Asian I	Parents		White Parent & Asian Parent			
	ECLS-K 1998		ECLS-K 2	2010	ECLS-K	1998	ECLS-K 2	ECLS-K 2010		ECLS-K 1998		010
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Cognitive assessments												
Math (Kindergarten entry)	.30	.03	.34	.03	.40	.08	.52	.05	.66	.08	.85	.08
Math (Spring of 1st grade)	.28	.03	.35	.03	.22	.08	.39	.05	.64	.07	.81	.06
Reading (Kindergarten entry)	.17	.03	.24	.03	.43	.09	.68	.06	.74	.11	.84	.08
Reading (Spring of 1st grade)	.20	.02	.28	.03	.44	.07	.46	.04	.79	.08	.74	.09
Socioeconomic factors												
Income (in \$10,000)	10.70	.21	10.42	.24	9.39	.58	11.03	.62	13.07	.60	13.37	.71
Mother's educational attainment	4.72	.05	5.29	.04	4.59	.15	5.47	.12	5.16	.16	6.02	.09
Mother's occupational prestige	3.07	.05	3.12	.08	2.80	.16	2.76	.11	3.00	.19	3.36	.18
Father's educational attainment	4.74	.06	5.00	.05	5.30	.13	5.59	.19	5.86	.15	6.07	.16
Father's occupational prestige	4.23	.03	4.12	.03	4.27	.13	4.47	.13	4.89	.16	4.73	.09
Parental investment												
Number of books in the home	96.38	1.20	99.48	1.44	44.65	2.72	49.21	2.67	93.23	4.42	104.17	5.49
Computer in the home	.70	.01	.83	.01	.64	.03	.88	.02	.79	.04	.86	.03
Child in private school	.20	.01	.14	.02	.17	.03	.16	.03	.27	.03	.24	.02
Child previously in daycare	.58	.01	.59	.02	.54	.04	.61	.02	.60	.03	.71	.05
Parental involvement												
Home involvement	1.88	.01	2.01	.01	1.65	.03	1.73	.03	1.86	.03	2.01	.02
Educational trips	.43	.00	.46	.01	.44	.02	.47	.01	.46	.02	.49	.02
School involvement	.69	.01	.75	.01	.52	.01	.64	.02	.73	.02	.76	.02
Extracurricular activities	.19	.00	.20	.00	.10	.01	.16	.01	.23	.02	.22	.02
Familial relationships												
Warm/close moments with child	3.68	.01	2.73	.01	3.65	.03	2.70	.03	3.72	.04	2.76	.04
Express affection for child	3.91	.01	2.93	.01	3.64	.05	2.84	.02	3.85	.02	2.90	.03
Number of close grandparents	2.48	.02	2.91	.03	1.60	.06	2.10	.07	2.22	.09	2.55	.12
Discuss religion/traditions in home	3.91	.02	3.74	.04	3.62	.07	3.55	.09	3.95	.11	3.45	.12
Parent talks to other parents	2.56	.06	2.77	.10	1.73	.15	2.38	.20	3.19	.28	3.32	.36
Educational expectations for child	3.98	.02	5.01	.02	4.63	.07	5.78	.07	4.29	.09	5.53	.05
Non-English language spoken in home	.02	.00	.02	.00	.65	.04	.60	.03	.03	.01	.02	.01
Family structure												
Both biological parents at home	.90	.01	.95	.00	.98	.00	.99	.00	.96	.01	1.00	.00
Father's age	36.59	.15	37.24	.20	38.50	.30	39.33	.32	37.39	.41	40.30	.55
Mother's age	34.27	.15	35.03	.20	35.21	.28	35.57	.32	35.11	.50	37.28	.40
Number of siblings	1.45	.02	1.54	.03	1.78	.13	1.24	.07	1.39	.08	1.23	.04
Child characteristics												
Age (in months)	68.78	.09	67.95	.13	67.44	.26	65.77	.22	68.08	.33	66.55	.33
Female	.48	.01	.48	.01	.49	.03	.55	.02	.46	.03	.47	.04
Health	4.46	.01	4.55	.01	4.06	.04	4.25	.03	4.39	.07	4.56	.06
Child has disability	.16	.01	.21	.01	.06	.01	.09	.01	.12	.02	.13	.02

Table 2. Variable Descriptions and Descriptive Statistics by Parent Race-ethnicity

Note: Results from 25 imputed datasets that incorporate the complex sample characteristics.

Table 5. Predicting Kindergalten Entr						ECLS-K 2010							
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6ª	Model 1 Model 2 Model 3 Model 4 Model					Model 6ª	
Race-ethnicity of parents					model 5		111000011						
White parents	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
Asian	.096	.086	.264*	.298**	.242**	.340***	.187***	.111**	.313***	.296***	.233***	.372***	
Asian parent/White parent	(.113) .361***	(.089)	(.102) .313**	(.104) .280**	(.089)	(.087)	(.056) .513***	(.041) .308**	(.053) .458***	(.052) .486***	(.043) .325**	(.050) .359***	
Black parents	(.100) 577***	(.093) 360***	(.097) 363***	(.097) 422***	(.092) 281***	(.088) 216***	(.110) 430***	(.104) 286***	(.106) 283***	(.111) 369***	(.103) 209***	(.093) 182***	
Black parent/White parent	(.046) 437*** ( 115)	(.038) 277** ( 101)	(.036) 288** ( 091)	(.041) 337*** ( 100)	(.035) 231* (.091)	(.036) 177* (.087)	(.056) 140 ( 110)	(.048) 087 ( 097)	(.055) 052 (.096)	(.051) 076 ( 101)	(.049) 027 (.094)	(.042) 096 (.095)	
Hispanic parents	896*** (.040)	449*** (.034)	516*** (.037)	616*** (.040)	320*** (.035)	221*** (.047)	777*** (.067)	343*** (.062)	490*** (.068)	599*** (.065)	218*** (.061)	145* (.057)	
Hispanic parent/White parent	174** (.064)	097 (.061)	097 (.061)	127* (.060)	067 (.059)	.002 (.057)	179** (.059)	098 (.053)	132* (.057)	151** (.058)	071 (.052)	047 (.048)	
Socioeconomic factors	<b>、</b>	<b>、</b>	ι, γ	. ,	· · ·	· · /	· · ·	<b>、</b>	. ,	. ,	. ,	. ,	
Income (in \$10,000)		.016*** (.002)			.010*** (.003)	.009*** (.002)		.010*** (.002)			.007** (.002)	.006** (.002)	
Mother's educational attainment		.094***			.065***	.055***		.091***			.068***	.056***	
Mother's occupational prestige		001			002	005		.016**			.017**	.014*	
Father's educational attainment		.077***			.056***	.051***		.080***			.067***	.060***	
Father's occupational prestige		.026*			.018	.016		.035***			.031***	.028***	
Parental investment		(.010)			(.010)	(.009)		(.009)			(.009)	(.008)	
Number of books in the home			.003***		.001***	.001***			.003***		.001***	.001***	
Computer in the home			.336***		.130***	.118***			.321***		.201***	.162***	
Child in private school			.326***		.155***	.153***			.146**		039	037	
Child previously in daycare			.162***		.092***	.092***			.141***		.047	.051	
Parental involvement			(.023)		(.024)	(.021)			(.051)		(.051)	(.020)	
Home involvement				.051*	.022	.033				.065*	.025	.031	
Educational trips				(.022) .124* (.053)	066 ( 048)	(.021) 078 (.045)				(.030) 041 (.055)	(.028) 184*** (.053)	(.050) 194*** (.052)	
School involvement				.542***	.253*** (.046)	.197***				.466***	.133	.068	
Extracurricular activities				1.212***	.604*** ( 091)	.557***				.951***	.470***	.441***	
Constant	.300*** (.026)	789*** (.046)	337*** (.030)	447*** (.045)	-1.005*** (.057)	-5.788***	.336*** (.031)	838*** (.061)	323*** (.056)	317*** (.071)	-1.112*** (.082)	-5.434*** (.332)	

Note: ECLS-K 1998 N = 9,737. ECLS-K 2010 N = 7,628. Results from 25 imputed datasets and incorporate the complex sample characteristics. <sup>a</sup> Controls include warm/close moments with child, parent talks to other parents, discuss religion/traditions in home, express affection for child, number of close grandparents, educational expectations for child, non-English language spoken in home, both biological parents at home, number of siblings, father's age, mother's age, child's age, sex, health, and whether child has a disability. \* p < .05, \*\* p < .01, \*\*\* p < .001.

Table 4. Predicting	g First-grade Spring	Math Scores:	Unstandardized (	Coefficients from	Linear Regression

Made I         Made I<				ECLS-K	1998			ECLS-K 2010						
Bace ethnicity of parents		Model 1	Model 2	Model 3	Model 4	Model 5	Model 6 <sup>a</sup>	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6 <sup>a</sup>	
White parents         0.00	Race-ethnicity of parents													
Asian       .064       .074       .093       .111       .068       .097       .045       .015       .177**       .136*       .114*       .139**         Asian parent/White parent       .0360*       .0771       .0871       .234       .210*       .465***       .300***       .025*       .327***       .327***       .327***       .327***       .327***       .327***       .327***       .327***       .327***       .327***       .327***       .327***       .327***       .327***       .327***       .327***       .327***       .438**       .421***       .327***       .432***       .432***       .432***       .432***       .432***       .432***       .432**       .432***       .432**       .432***       .432***       .432**	White parents	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
(D66)         (D77)         (D87)         (D83)         (D55)         (D33)         (D35)         (D35)         (D35)         (D35)         (D32)         (D32)         (D33)         (D33) <th< td=""><td>Asian</td><td>064</td><td>074</td><td>.093</td><td>.111</td><td>.068</td><td>.097</td><td>.045</td><td>015</td><td>.177**</td><td>.136*</td><td>.114*</td><td>.139**</td></th<>	Asian	064	074	.093	.111	.068	.097	.045	015	.177**	.136*	.114*	.139**	
shain parent/White parent360"201325"293"204204360"**403"**300"**4.82"*4.43"**32"*** <td></td> <td>(.096)</td> <td>(.077)</td> <td>(.087)</td> <td>(.089)</td> <td>(.076)</td> <td>(.083)</td> <td>(.055)</td> <td>(.043)</td> <td>(.054)</td> <td>(.055)</td> <td>(.048)</td> <td>(.052)</td>		(.096)	(.077)	(.087)	(.089)	(.076)	(.083)	(.055)	(.043)	(.054)	(.055)	(.048)	(.052)	
(1.00)         (1.07)<	Asian parent/White parent	.360**	.201	.325**	.293**	.204	.210*	.463***	.300***	.428***	.443***	.323***	.327***	
Black parents         .7.09**         .5.20***         .4.29***         .5.22***         .5.22***         .4.22***         .5.82***         .5.29***         .4.23***         .6.29***         .5.22***         .5.22***         .4.23***         .6.29***         .5.22***         .4.23***         .6.29***         .5.22***         .4.23***         .6.23***         .5.22***         .4.23***         .6.23***         .5.22***         .4.23***         .1.55         .1.51         (1.11)         (1.12)         (1.13)         (1.13)         (1.13)         (1.13)         (1.13)         (1.13)         (1.13)         (1.13)         (1.13)         (1.13)         (1.12)         (1.11)         (1.12)         (1.10)         (1.00)         (		(.109)	(.107)	(.107)	(.106)	(.105)	(.104)	(.089)	(.081)	(.087)	(.092)	(.083)	(.080)	
(051)         (048)         (046)         (046)         (052)         (057) <th< td=""><td>Black parents</td><td>709***</td><td>520***</td><td>498***</td><td>572***</td><td>424***</td><td>376***</td><td>632***</td><td>522***</td><td>482***</td><td>583***</td><td>429***</td><td>443***</td></th<>	Black parents	709***	520***	498***	572***	424***	376***	632***	522***	482***	583***	429***	443***	
Black parent/White parent         -499***         -300**         -300**         -200**         -220*         -214*         -168         -155         -200*           Hispanic parent/         (113)         (113)         (113)         (113)         (113)         (110)         (110)         (100)		(.051)	(.048)	(.046)	(.049)	(.046)	(.046)	(.055)	(.052)	(.057)	(.054)	(.053)	(.045)	
base parter         interpart	Black parent/White parent	- 499***	- 360**	- 360***	(.0-3) - 413***	- 309**	- 284*	- 250*	- 214*	- 168	- 195	- 150	- 209*	
Hispanic parents         6.64***         3.33***         6.35***         6.75***         6.133*         6.15**         6.75***         6.33***         6.43***         6.43***         6.43***         6.43***         6.43***         6.43***         7.14***         7.15**         7.35***         6.43**         7.44***         7.14*** <th7.14***< th=""></th7.14***<>	black parent, white parent	(112)	(113)	(105)	(115)	(111)	(112)	(110)	(104)	(100)	(105)	( 100)	(104)	
Inspaning parents         -0.94"         -0.303         -0.303         -0.403         -1.203         -1.203         -1.203         -1.203         -0.049         (0.44)         (0.44)         (0.44)         (0.44)         (0.44)         (0.44)         (0.44)         (0.44)         (0.44)         (0.44)         (0.45)         (0.44)         (0.46)         (0.44)         (0.44)         (0.45)         (0.45)         (0.44)         (0.44)         (0.55)         (0.51)         (0.43)         (1.44)         (1.44)         (1.44)         (1.44)         (1.44)         (1.46)         (0.46)	Llionania novembo	(.112)	(.113)	(.105)	(.113)	(.111)	(.112)	(.110)	200***	(.100)	(.105)	(.100)	201***	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Hispanic parents	694	303	355	457	183	155	/51	398	495	609	2//	301	
hispanic parent//Winke parent       .211***       .144*       .144*       .142*       .137**       .059       .207***       .141**       .164**       .146**       .146**       .164**       .146**       .164**       .160*       .066       .007**       .006*       .000       .000**       .000**       .000***       .000***       .000***       .000***       .000***       .000***       .000***       .000***       .000***       .000***       .000***       .000***       .000***		(.050)	(.045)	(.049)	(.054)	(.048)	(.064)	(.049)	(.048)	(.051)	(.049)	(.049)	(.049)	
(b63)       (b60)       (b62)       (b53)       (b57)       (b77)       (b77) <th< td=""><td>Hispanic parent/White parent</td><td>211***</td><td>144*</td><td>142*</td><td>1/3**</td><td>118*</td><td>059</td><td>20/***</td><td>141**</td><td>163**</td><td>184***</td><td>114*</td><td>100*</td></th<>	Hispanic parent/White parent	211***	144*	142*	1/3**	118*	059	20/***	141**	163**	184***	114*	100*	
Sociencommic factors         .003***         .009***         .007***         .006**         .000         .002           Income (n \$10,000)         .013***         .002         .002*         .002*         .002*         .002         .002         .002*         .002*         .002*         .002*         .002*         .002*         .002*         .002*         .002*         .002*         .002*         .003*         .015**         .015**         .016**         .016**         .016**         .016**         .016**         .016**         .006*         .006*         .006*         .006*         .006***         .006***         .006***         .006****         .006****         .006****         .006****         .006****         .006****         .006****         .006****         .006****         .006****         .006****         .006****         .006****         .006****         .006****         .006****         .001***         .		(.063)	(.060)	(.062)	(.059)	(.059)	(.057)	(.057)	(.053)	(.056)	(.055)	(.052)	(.046)	
Income (in \$10,000)0.13***.093***.007***.006*.004.004(002)(002)(002)(002).002).003.0047***.007****.058***.047***Mother's educational attainment.085***.001.001.010.011**.011**.011**.011***.011***.011***.011***.011***.011***.011***.011***.011***.011****.011****.001****.001****.001****.001****.001****.001****.001****.001*****.001*****.001*********.001***********************************	Socioeconomic factors													
(002)       (002)       (002)       (002)       (002)       (002)       (002)       (002)         Mother's educational attainment       (009)       (010)	Income (in \$10,000)		.013***			.009***	.007***		.006*			.004	.004	
Mother's educational attainment         .085***         .062***         .054***         .077**         .085***         .047***           Mother's occupational prestige         .001         .001         .001         .011         .011         .011         .011         .011         .011         .011         .011**         .016**         .016**         .016**         .016**         .016**         .016**         .016**         .016**         .006         .006         .006         .006**         .006**         .006**         .006***         .006***         .000*         .000*         .000*         .000***         .000***         .000***         .000***         .000***         .000***         .000***         .000***         .000***         .000***         .000***         .000***         .000***         .000****         .000****         .000****         .000***         .000****         .000****         .000*******         .000****         .000********         .000**********************************			(.002)			(.002)	(.002)		(.002)			(.002)	(.002)	
(.009)       (.009)       (.010)       (.010)       (.010)       (.010)         Mother's occupational prestige       .001       .001       .001       .001       .001       .001         Father's educational attainment       .067***       .005       .005       .006       .000       .002***       .002***       .002***       .002***       .002***       .000*****       .000*****       .000***** <td>Mother's educational attainment</td> <td></td> <td>.085***</td> <td></td> <td></td> <td>.062***</td> <td>.054***</td> <td></td> <td>.077***</td> <td></td> <td></td> <td>.058***</td> <td>.047***</td>	Mother's educational attainment		.085***			.062***	.054***		.077***			.058***	.047***	
Mother's occupational prestige         .001         .001         .001         .001'         .015*         .016**         .014*           Cobe         (.006)         (.007)         (.007)         (.007)         (.000) <td< td=""><td></td><td></td><td>(.009)</td><td></td><td></td><td>(.008)</td><td>(.009)</td><td></td><td>(.010)</td><td></td><td></td><td>(.010)</td><td>(.010)</td></td<>			(.009)			(.008)	(.009)		(.010)			(.010)	(.010)	
$(006)$ $(006)$ $(006)$ $(006)$ $(006)$ $(006)$ $(006)$ $(006)$ $(006)$ Father's educational attainment $0.67^{***}$ $0.67^{***}$ $0.67^{***}$ $0.67^{***}$ $0.05^{***}$ $0.53^{***}$ $(009)$ $(009)$ $(000)$ $(000)$ $(000)$ $0.008$ $0.00^{**}$ $0.02$	Mother's occupational prestige		.001			.001	001		.015*			.016**	.014*	
Father's educational attainment $(0.00^{++++})$ $(0.00^{+})$ $(0.$			(006)			(006)	(006)		(006)			(006)	(006)	
Tartier's occupational actainment.007.003.007.003.007.003 <t< td=""><td>Eather's educational attainment</td><td></td><td>067***</td><td></td><td></td><td>051***</td><td>0/5***</td><td></td><td>067***</td><td></td><td></td><td>058***</td><td>052***</td></t<>	Eather's educational attainment		067***			051***	0/5***		067***			058***	052***	
father's occupational prestige         0.027**         0.009         0.009         0.009         0.009         0.009         0.009         0.009         0.009         0.009         0.009         0.009         0.008           Parental investment         (.000) <td></td> <td></td> <td>( 000)</td> <td></td> <td></td> <td>( 000)</td> <td>( 008)</td> <td></td> <td>( 000)</td> <td></td> <td></td> <td>.038</td> <td>.000</td>			( 000)			( 000)	( 008)		( 000)			.038	.000	
Partner's occupational prestige         1.027***         1.020         0.018         1.024***         1.020**         0.016**           (.010)         (.010)         (.010)         (.008)         (.009)         (.009)         (.009)         (.009)         (.009)         (.009)         (.000)         (.000)         (.000)         (.000)         (.000)         (.000)         (.000)         (.000)         (.000)         (.000)         (.000)         (.000)         (.000)         (.000)         (.001)****         .02***         .127***         .127***           Computer in the home         .324***         .137***         .124***         .253***         .152***         .127***           (.031)         (.031)         (.032)         (.033)         (.033)         (.031)         (.032)           Child in private school         .186***         .030         .025         .070         .079         .100*           (.045)         (.039)         (.036)         (.054)         (.053)         (.051)         .005           Parental involvement         .025         .006         .010         .021*         .002         .021*         .021*         .021*         .021*         .021*         .021*         .021*         .021*         .0	Fath suls as such that a low stime		(.009)			(.009)	(.008)		(.009)			(.010)	(.009)	
(.010)       (.010)       (.008)       (.009)       (.009)       (.009)       (.009)       (.009)       (.009)       (.009)       (.009)       (.009)       (.009)       (.000)       (.001)       (.001)       (.001)       (.001)       (.001)       (.001)       (.001)       (.001)       (.001)       (.001)       (.001)       (.001)       (.001)       (.001)	Father's occupational prestige		.027***			.020	.018		.024***			.020*	.016*	
Parental investment         .002***         .001***         .001***         .003***         .002***         .12**** <td></td> <td></td> <td>(.010)</td> <td></td> <td></td> <td>(.010)</td> <td>(.010)</td> <td></td> <td>(.008)</td> <td></td> <td></td> <td>(.009)</td> <td>(.008)</td>			(.010)			(.010)	(.010)		(.008)			(.009)	(.008)	
Number of books in the home       .002***       .001***       .001***       .003***       .002***       .002***       .002***         Computer in the home       .000       (.000)       (.001)       (.031)       (.032)       (.033)       (.033)       (.031) <t< td=""><td>Parental investment</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Parental investment													
Computer in the home         (.000)         (.000)         (.000)         (.000)         (.000)         (.000)           Computer in the home         .324***         .137***         .124***         .253***         .152***         .127***           Child in private school         .186***         .032         (.033)         (.033)         (.031)         (.032)           Child in private school         .186***         .006         .025         .070         .079         .100*           Child previously in daycare         .067**         .006         .010         .061*         .014         .008           Child previously in daycare         .067**         .006         .010         .061*         .014         .008           Parental involvement         .025         .005         .001         .028         .028         .027           Educational trips         .140*         .029         .050         .007         .114*         .138**           School involvement         .581***         .325***         .272***         .040*         .050         .050         .050         .050         .050         .050         .050         .050         .050         .050         .050         .050         .050         .050         <	Number of books in the home			.002***		.001***	.001***			.003***		.002***	.002***	
Computer in the home       .324***       .137***       .124***       .253***       .152***       .127***         (.031)       (.032)       (.033)       (.033)       (.031)       (.032)         Child in private school       .186***       .030       .025       .070       .079       .100*         Child in private school       .067*       .006       .010       .061*       .014       .008         Child previously in daycare       .067**       .006       .010       .061*       .014       .008         Parental involvement       .030       .005       .001       .027)       .028       .027)         Educational trips       .140**       .029       .050       .007       .114*       .138**         .050i       .053i       .052       .050       .007       .114*       .138**         School involvement       .581***       .325***       .272***       .447***       .181*       .148*         .053i       .052i       .050i       .050i <td< td=""><td></td><td></td><td></td><td>(.000)</td><td></td><td>(.000)</td><td>(.000)</td><td></td><td></td><td>(.000)</td><td></td><td>(.000)</td><td>(.000)</td></td<>				(.000)		(.000)	(.000)			(.000)		(.000)	(.000)	
(.031)       (.032)       (.033)       (.033)       (.031)       (.032)         Child in private school       .186***       .030       .025       .070      079      100*         (.045)       (.039)       (.036)       (.054)       (.053)       (.051)         Child previously in daycare       .067**       .006       .010      061*      014      028         Parental involvement      025)      025      021      029      021      029      021      029      021	Computer in the home			.324***		.137***	.124***			.253***		.152***	.127***	
Child in private school       .186***       .030       .025       .070      079      100*         (.045)       (.039)       (.036)       (.054)       (.053)       (.051)         Child previously in daycare       .067**       .006       .010       .061*      014      008         (.025)       (.026)       (.025)       (.027)       (.028)       (.026)         Parental involvement       .030      005       .001       .049       .004      003         Home involvement       .024       (.023)       (.022)       .007       .114*      138**         Educational trips       .140**      029      050       .007       .114*      138**         School involvement       .140**      029      050       .007       .114*      138**         (.053)       (.052)       (.050)       .007       .114*       .138**         (.053)       (.052)       (.050)       .007       .114*       .138**         (.053)       (.052)       (.050)       .007       .114*       .138**         .050       .051       .049       .049       .047       .075       .072       .073)         S				(.031)		(.032)	(.033)			(.033)		(.031)	(.032)	
(.045)       (.039)       (.036)       (.054)       (.053)       (.051)         Child previously in daycare       .067**       .006       .010       .061*      014      008         (.025)       (.026)       (.025)       (.027)       (.028)       (.026)         Parental involvement       .030      005       .001       .049       .004      003         Home involvement       .030      005       .001       .028)       (.028)       (.027)         Educational trips       .140**      029      050       .007      114*      138**         .6053)       (.052)       (.050)       .050       .007       .114*      138**         .6053)       .052       .050       .007       .114*       .138**         .6053)       .052       .050       .007       .114*       .138**         .6053)       .052       .050       .007       .072       .073         School involvement       .581***       .325***       .272***       .857***       .349***       .049       .075       .072       .073         Extracurricular activities       .857***       .323***       .349***       .652***       .652*** <td>Child in private school</td> <td></td> <td></td> <td>.186***</td> <td></td> <td>.030</td> <td>.025</td> <td></td> <td></td> <td>.070</td> <td></td> <td>079</td> <td>100*</td>	Child in private school			.186***		.030	.025			.070		079	100*	
Child previously in daycare       .067**       .006       .010       .061*       .001       .002         Parental involvement       .025)       .026)       .022)       .027)       .028)       .026)         Home involvement       .030      005       .001       .049       .004      003         Educational trips       .030      005       .001       .049       .004      038         School involvement       .030      005       .001       .049       .004      038         Educational trips       .140**      029      050       .007      114*      138**         .055)       (.052)       (.050)       .050)       .050)       .050)       .050)       .050)         School involvement       .581***       .325***       .272***       .447***       .181*       .148*         .055)       (.049)       (.048)       .055)       .050)       .050)       .050)       .073)         Extracurricular activities       .857***       .323***       .349***       .604***       .197***       .221**       .851***       .3096***         Constant       .283***      668***      260****      392***       .4125***	· · · · · · · · · · · · · · · · · · ·			(.045)		(.039)	(.036)			(.054)		(.053)	(.051)	
Control previously inducted	Child previously in daycare			067**		006	010			061*		- 014	- 008	
Parental involvement       (.025)       (.025)       (.027)       (.027)       (.028)       (.027)         Home involvement       .030      005       .001       .049       .004      003         Educational trips       .140**      029      050       .007      114*      138**         .053)       (.052)       (.050)       .050)       .050)       .050)       .050)         School involvement       .581***       .325***       .272***       .447***       .181*       .148*         .055)       (.049)       (.048)       (.075)       (.072)       (.073)         Extracurricular activities       .857***       .323***       .349***       .504***      197***       .221**      851***       -3.096***         Constant       .283***      668***      260***      392***      889***      4125***       .348***      604***      197***      221**      851***       -3.096***	enna previously in adyeare			(025)		(026)	(025)			(027)		( 028)	(026)	
Home involvement       .030      005       .001       .049       .004      003         Kome involvement       .024)       (.023)       (.022)       .007       .114*      138**         Educational trips       .140**      029      050       .007       .114*      138**         School involvement       .581***       .325***       .272***       .447***       .181*       .148*         Extracurricular activities       .857***       .323***       .349***       .652***       .602***       .007)       .072)       .073)         Constant       .283***      668***      260***      392***      889***      4125***       .348***      604***      197***      221**      851***       -3.096***	Parantal involvement			(.025)		(.020)	(.025)			(.027)		(.028)	(.020)	
Home involvement       1.030      005       1.001       1.049       1.004      003         Identify       (.024)       (.023)       (.022)       (.028)       (.028)       (.027)         Educational trips       1.40**      029      050       .007      114*      138**         School involvement       .581***       .325***       .272***       .050       .007       .144*       .138*         Extracurricular activities       .581***       .325***       .272***       .447***       .181*       .148*         (.055)       (.049)       (.048)       .048)       .075)       (.072)       (.073)         Extracurricular activities       .857***       .323***       .349***       .604***      197***       .221**       .851***       .3096***         Constant       .283***      668***      260***      392***      889***       -4.125***       .348***      604***      197***      221**      851***       -3.096***					020	005	001				0.40	004	002	
Educational trips       (.024)       (.023)       (.022)       (.023)       (.024)       (.027)         Educational trips       .140**      029      050       .007      114*      138**         School involvement       (.053)       (.052)       (.050)       (.050)       (.050)       (.050)       (.050)         School involvement       .581***       .325***       .272**       .447***       .181*       .148*         Loss       (.055)       (.049)       (.048)       (.075)       (.072)       (.073)         Extracurricular activities       .857***       .323***       .349***       .652***       .269***       .302***         Constant       .283***      688***      260***      392***      889***       -4.125***       .348***      604***      197***      221**      851***       -3.096***	Home involvement				.030	005	.001				.049	.004	003	
Educational trips       .140**       .029       .050       .007      114*       .138**         Lducational trips       (.053)       (.052)       (.050)       (.050)       (.050)       (.050)       (.050)         School involvement       .581***       .325***       .272***       .447***       .181*       .148*         Extracurricular activities       .581***       .325***       .272***       .447***       .181*       .148*         [095]       (.049)       (.048)       (.075)       (.072)       (.073)         [092]       (.090)       (.088)       (.075)       (.072)       (.079)         Constant       .283***      668***      392***      889***       -4.125***       .348***      604***      197***      221**      851***       -3.096***					(.024)	(.023)	(.022)				(.028)	(.028)	(.027)	
(.053)       (.052)       (.050)       (.050)       (.050)       (.050)         School involvement       .581***       .325***       .272***       .447***       .181*       .148*         (.055)       (.049)       (.048)       (.075)       (.072)       (.073)         Extracurricular activities       .857***       .323***       .349***       .652***       .269***       .302***         (.092)       (.090)       (.088)       (.075)       (.072)       (.079)         Constant       .283***      688***      260***      392***      889***       -4.125***       .348***      604***      197***      221**      851***       -3.096***	Educational trips				.140**	029	050				.007	114*	138**	
School involvement       .581***       .325***       .272***       .447***       .181*       .148*         (.055)       (.049)       (.048)       (.075)       (.072)       (.073)         Extracurricular activities       .857***       .323***       .349***       .652***       .269***       .302***         (.092)       (.090)       (.088)       (.075)       (.072)       (.079)         Constant       .283***      688***      200***      392***      889***       -4.125***       .348***      604***      197***      221**      851***       -3.096***					(.053)	(.052)	(.050)				(.050)	(.050)	(.050)	
Extracurricular activities       (.055)       (.049)       (.048)       (.075)       (.072)       (.073)         Extracurricular activities       .857***       .323***       .349***       .652***       .269***       .302***         (.092)       (.090)       (.088)       (.075)       (.072)       (.079)         Constant       .283***      688***      260***      392***      889***       -4.125***       .348***      604***      197***      221**      851***       -3.096***	School involvement				.581***	.325***	.272***				.447***	.181*	.148*	
Extracurricular activities       .857***       .323***       .349***       .652***       .269***       .302***         (.092)       (.090)       (.088)       (.075)       (.072)       (.079)         Constant       .283***      688***      260***      392***      889***      4.125***       .348***      604***      197***      221**      851***       -3.096***					(.055)	(.049)	(.048)				(.075)	(.072)	(.073)	
(.092) (.090) (.088) (.075) (.072) (.079) Constant .283***688***260***392***889*** -4.125*** .348***604***197***221**851*** -3.096***	Extracurricular activities				.857***	.323***	.349***				.652***	.269***	.302***	
Constant .283***688***260***392***889*** -4.125*** .348***604***197***221**851*** -3.096***					(.092)	(.090)	(.088)				(.075)	(.072)	(.079)	
	Constant	.283***	688***	260***	392***	889***	-4.125***	.348***	604***	197***	221**	851***	-3.096***	
(.026) (.053) (.037) (.062) (.074) (.238) (.032) (.061) (.056) (.074) (.082) (.308)		(.026)	(.053)	(.037)	(.062)	(.074)	(.238)	(.032)	(.061)	(.056)	(.074)	(.082)	(.308)	

Note: ECLS-K 1998 N = 9,737. ECLS-K 2010 N = 7,628. Results from 25 imputed datasets and incorporate the complex sample characteristics. <sup>a</sup> Controls include warm/close moments with child, parent talks to other parents, discuss religion/traditions in home, express affection for child, number of close grandparents, educational expectations for child, non-English language spoken in home, both biological parents at home, number of siblings, father's age, mother's age, child's age, sex, health, and whether child has a disability. \* p < .05, \*\* p < .01, \*\*\* p < .001.

			ECLS-k	(1998			ECLS-K 2010						
-	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6 <sup>a</sup>	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6 <sup>a</sup>	
Race-ethnicity of parents													
White parents	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
Asian	.255*	.245*	.418***	.450***	.401***	.518***	.433***	.348***	.560***	.546***	.474***	.550***	
	(.120)	(.099)	(.110)	(.113)	(.099)	(.098)	(.076)	(.070)	(.071)	(.075)	(.071)	(.075)	
Asian parent/White parent	.569***	.398**	.525***	.493***	.393**	.415**	.597***	.392***	.547***	.570***	.410***	.415***	
	(.144)	(.139)	(.139)	(.140)	(.136)	(.134)	(.115)	(.113)	(.119)	(.118)	(.114)	(.109)	
Black parents	322***	118*	124*	177**	045	.003	092	.050	.052	029	.126*	.121*	
	(.056)	(.051)	(.051)	(.056)	(.052)	(.055)	(.062)	(.055)	(.059)	(.057)	(.053)	(.051)	
Black parent/White parent	303**	152	167	213*	113	054	169	111	084	105	054	116	
	(.113)	(.104)	(.103)	(.094)	(.097)	(.085)	(.130)	(.125)	(.121)	(.126)	(.123)	(.122)	
Hispanic parents	782***	363***	428***	517***	237***	127*	560***	137*	288***	376***	015	.011	
	(.046)	(.043)	(.044)	(.046)	(.042)	(.053)	(.067)	(.065)	(.067)	(.067)	(.063)	(.075)	
Hispanic parent/White parent	114	042	040	065	009	.039	165**	082	119*	136*	055	052	
	(.064)	(.058)	(.059)	(.061)	(.057)	(.057)	(.061)	(.059)	(.060)	(.060)	(.058)	(.055)	
Socioeconomic factors													
Income (in \$10,000)		.014***			.009***	.008***		.005			.003	.002	
		(.002)			(.002)	(.002)		(.003)			(.003)	(.003)	
Mother's educational attainment		.096***			.069***	.060***		.092***			.070***	.055***	
		(.009)			(.009)	(.009)		(.010)			(.010)	(.010)	
Mother's occupational prestige		004			004	011		.006			.008	.003	
		(.006)			(.006)	(.006)		(.006)			(.006)	(.006)	
Father's educational attainment		.069***			.051***	.049***		.091***			.080***	.073***	
		(.009)			(.009)	(.009)		(.012)			(.013)	(.012)	
Father's occupational prestige		.029**			.022*	.018		.041***			.036***	.035***	
·		(.011)			(.010)	(.010)		(.009)			(.009)	(.009)	
Parental investment		( - )			( /	( /		( )			( )	()	
Number of books in the home			.002***		.001***	.001***			.003***		.001***	.001***	
			(.000)		(.000)	(.000)			(.000)		(.000)	(.000)	
Computer in the home			275***		087**	079*			261***		134***	102**	
			(.030)		(.032)	(.034)			(.040)		(.035)	(.035)	
Child in private school			.330***		.172***	.164***			.080		098	- 112	
			(051)		(044)	(040)			(067)		(065)	(061)	
Child previously in daycare			171***		105***	100***			177***		080**	085**	
enna previously in adjeare			(025)		(024)	(023)			( 028)		(028)	(027)	
Parental involvement			(.023)		(.024)	(.023)			(.020)		(.020)	(.027)	
Home involvement				084***	055*	064**				078***	037	028	
nome monement				(025)	(022)	(022)				(023)	(022)	(026)	
Educational trips				014	- 166**	- 163**				- 045	- 179**	- 179**	
				(054)	(050)	( 051)				(058)	( 060)	(056)	
School involvement				(.034) 436***	161**	112*				459***	145*	063	
School Involvement				( 058)	( 055)	( 054)				( 067)	( 072)	(072)	
Extracurricular activities				(.030) 1 250***	676***	521***				076***	(.U/ <i>L)</i> 51/1***	266***	
				(102)	( 094)	.321				( 095)	( 097)	( 098)	
Constant	170***	060***	175***	(.±02)	(.0 <i>34)</i> 1 072***	(.007)	7/2***	027***	27/***	(.033)	(.0 <i>37)</i> 1 310***	(.030)	
Constant	(025)	000	423	525	(067)	(252)	.245	55/	574	435	( 076)	( 206)	
	(.025)	(.034)	(.055)	(.0.0)	(.007)	(.232)	(.032)	(.055)	(.047)	(.072)	(.070)	(.200)	

#### Table A1. Predicting Kindergarten Entry Reading Scores: Unstandardized Coefficients from Linear Regression

Note: ECLS-K 1998 N = 9,737. ECLS-K 2010 N = 7,628. Results from 25 imputed datasets and incorporate the complex sample characteristics. <sup>a</sup> Controls include warm/close moments with child, parent talks to other parents, discuss religion/traditions in home, express affection for child, number of close grandparents, educational expectations for child, non-English language spoken in home, both biological parents at home, number of siblings, father's age, mother's age, child's age, sex, health, and whether child has a disability. \* p < .05, \*\* p < .01, \*\*\* p < .001.

	8		ECLS-K	1998			ECLS-K 2010							
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6 <sup>a</sup>	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6 <sup>a</sup>		
Race-ethnicity of parents														
White parents	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		
Asian	.239*	.224**	.370***	.425***	.356***	.411***	.177***	.114**	.281***	.288***	.230***	.237***		
	(.101)	(.081)	(.093)	(.094)	(.081)	(.081)	(.050)	(.039)	(.048)	(.048)	(.041)	(.046)		
Asian parent/White parent	.594***	.430***	.552***	.526***	.422***	.436***	.461***	.290***	.426***	.436***	.315***	.295***		
	(.132)	(.122)	(.128)	(.129)	(.121)	(.124)	(.094)	(.086)	(.093)	(.095)	(.086)	(.078)		
Black parents	404***	211***	226***	265***	143**	117*	241***	130*	117*	180**	063	109*		
·	(.060)	(.056)	(.054)	(.059)	(.054)	(.053)	(.060)	(.053)	(.059)	(.056)	(.054)	(.051)		
Black parent/White parent	266**	127	141	182	091	037	175	136	102	112	080	137		
	(.101)	(.099)	(.091)	(.098)	(.094)	(.092)	(.093)	(.087)	(.085)	(.085)	(.084)	(.083)		
Hispanic parents	620***	240***	310***	374***	134***	099	670***	299***	438***	493***	187***	195***		
	(.039)	(.037)	(.038)	(.040)	(.039)	(.051)	(.051)	(.047)	(.053)	(.051)	(.048)	(.051)		
Hispanic parent/White parent	123	059	061	080	034	.011	123*	052	084	095	027	029		
	(.069)	(.067)	(.069)	(.065)	(.066)	(.063)	(.057)	(.053)	(.056)	(.057)	(.053)	(.051)		
Socioeconomic factors	<b>、</b>	<b>、</b>	<b>、</b>	. ,	· · ·	. ,	· · ·	. ,	( )	. ,	( )	. ,		
Income (in \$10,000)		.011***			.007**	.006**		.003			.001	.001		
		(.002)			(.002)	(.002)		(.003)			(.003)	(.002)		
Mother's educational attainment		.082***			.059***	.052***		.085***			.064***	.051***		
		(.009)			(.009)	(.009)		(.010)			(.010)	(.010)		
Mother's occupational prestige		006			007	013*		.019**			.020***	.015**		
		(.006)			(.006)	(.006)		(.006)			(.006)	(.005)		
Father's educational attainment		.068***			.052***	.049***		.071***			.061***	.055***		
		(.010)			(.010)	(.009)		(.011)			(.011)	(.010)		
Father's occupational prestige		.041***			.034**	.029**		.032***			.028**	.027***		
·		(.011)			(.011)	(.010)		(.009)			(.009)	(.008)		
Parental investment		()			()	( /		( )			( )	( )		
Number of books in the home			.002***		.000	.000			.002***		.001***	.001***		
			(.000)		(.000)	(.000)			(.000)		(.000)	(.000)		
Computer in the home			.302***		.119***	.112***			.294***		.177***	.154***		
			(.030)		(.031)	(.032)			(.038)		(.037)	(.036)		
Child in private school			.274***		.127**	.110*			.069		095	120		
· · · · · · · · · · · · · · · · · · ·			(.050)		(.048)	(.046)			(.067)		(.066)	(.065)		
Child previously in daycare			.100***		.038	.044			.069**		017	006		
· · · · · · · · · · · · · · · · · · ·			(.025)		(.024)	(.023)			(.027)		(.028)	(.027)		
Parental involvement			( )		(/	( /			( - )		( /	( - )		
Home involvement				.076**	.053*	.049				.078**	.045	.030		
				(.026)	(.025)	(.025)				(.026)	(.025)	(.026)		
Educational trips				.034	129**	135**				057	173**	172**		
				(.051)	(.049)	(.048)				(.056)	(.055)	(.053)		
School involvement				.516***	.270***	.209***				.467***	.210**	.156*		
				(.059)	(.059)	(.059)				(.074)	(.078)	(.076)		
Extracurricular activities				.997***	.491***	.311***				.898***	.536***	.311***		
				(.090)	(.085)	(.082)				(.084)	(.085)	(.087)		
Constant	.201***	777***	310***	495***	-1.001***	-3.521***	.281***	746***	251***	380***	-1.055***	-2.786***		
	(.025)	(.050)	(.036)	(.060)	(.073)	(.264)	(.027)	(.054)	(.050)	(.071)	(.079)	(.356)		

#### Table A2. Predicting First-grade Spring Reading Scores: Unstandardized Coefficients from Linear Regression

Note: ECLS-K 1998 N = 9,737. ECLS-K 2010 N = 7,628. Results from 25 imputed datasets and incorporate the complex sample characteristics. <sup>a</sup> Controls include warm/close moments with child, parent talks to other parents, discuss religion/traditions in home, express affection for child, number of close grandparents, educational expectations for child, non-English language spoken in home, both biological parents at home, number of siblings, father's age, mother's age, child's age, sex, health, and whether child has a disability. \* p < .05, \*\* p < .01, \*\*\* p < .001.